

ABSTRACT

An electrical bone growth promotion apparatus and method for the delivery of electrical current to an implant surgically implanted within the intervertebral space between two adjacent vertebrae of the spine to promote bone growth and the fusion process to areas adjacent to the implant is disclosed. The apparatus of the present invention comprises a self contained implant having a surgically implantable, renewable power supply and related control circuitry for delivering electrical current directly to the implant and thus directly to the area in which the promotion of bone growth is desired. The desired areas of bone growth promotion may be controlled by conducting negative charge only to the desired location of bone growth promotion.